International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 9 Issue 4, Jul-Aug 2025 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

An Empirical Study on the Protection of Takeaway Riders' Rights and Interests from the Perspective of Platform Economy

Rao Xinran, Sun Yiyang, Li Wenling, Yu Na, Li Yangyue

Beijing Wuzi University, Tongzhou, Beijing, China

ABSTRACT

With the rapid growth of the platform economy, the scale of the catering takeaway industry has continued to expand. As an important bridge between merchants and consumers, takeaway riders have aroused social concern regarding the protection of their rights and interests. Based on the characteristics of the platform economy, this study reveals the practical dilemmas faced by takeaway riders through field investigations and data analysis: ambiguous definition of labor relations, insufficient coverage of social security, coexistence of high-intensity work and potential safety hazards, and high income volatility. To address these issues, systematic solutions are proposed from three levels: institutional, platform, and social. These include improving laws and regulations to clarify the boundaries of workers' rights and interests, strengthening platform responsibilities to build a fair salary and protection mechanism, and guiding social cognition to enhance the professional dignity of takeaway riders. Meanwhile, the study focuses on innovation in the profit model of the takeaway industry and explores a sustainable development path that balances riders' rights and platform benefits. This research aims to provide practical references for policy-making, enterprise management, and public discussions, helping to promote the long-term and healthy development of the takeaway industry on the basis of protecting workers' rights and interests.

KEYWORDS: *Platform economy; Takeaway riders; Protection of rights and interests; Empirical analysis.*

How to cite this paper: Rao Xinran | Sun Yiyang | Li Wenling | Yu Na | Li Yangyue "An Empirical Study on the Protection of Takeaway Riders' Rights and Interests from the Perspective of Platform Economy" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-9 | Issue-4, August 2025, pp.1214-1220, URL: www.ijtsrd.com/papers/ijtsrd97392.pdf

IJTSRD97392

Copyright © 2025 by author (s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (http://creativecommons.org/licenses/by/4.0)

INTRODUCTION

Driven by the wave of the digital economy, the platform economy has achieved vigorous development. As a core format of the platform economy, the catering takeaway industry has shown an explosive growth trend. According to statistics, as of 2024, the number of food delivery riders in China has exceeded 13 million, accounting for 15% of the total number of workers in new employment forms[1]. This group has become a key service link connecting catering merchants and consumers.

However, behind the expansion of the industry scale, issues regarding the protection of takeaway riders' rights and interests have gradually become prominent. Platforms use technical means such as GPS trajectory monitoring, mandatory planning of order routes, and hierarchical reward and punishment mechanisms to achieve implicit algorithmic control over riders. Yet, they evade employment obligations stipulated by labor laws in the name of "labor contracting" and "information intermediary", leading to a serious disconnection between the essence of labor and the form of employment[1]. From the perspective of judicial practice, between 2017 and 2023, the total number of labor dispute cases involving food delivery riders nationwide reached 587. Among them, the number of cases after 2020 increased nearly four times compared with that in 2019, showing a rapid upward trend in rights disputes[1]. However, the traditional "dichotomy" identification standard for labor relations is difficult to adapt to the flexible and fragmented employment model under the platform economy, directly resulting in a winning rate of only 20.46% for riders in labor disputes. A large number of disputes cannot be reasonably resolved due to ambiguous labor relations and difficulties in evidence collection[1].

At the same time, takeaway riders face multiple practical dilemmas: lack of social insurance coverage,

as most riders are not insured; work intensity far exceeds a reasonable range, and the right to rest is difficult to guarantee. Although the Ministry of Human Resources and Social Security issued guidelines on the protection of rights and interests of workers in new employment forms in 2023, the documents are mostly principled statements[2], lacking specific implementation rules, leading to the protection of rights and interests falling into a dual failure situation of "insufficient policy guidance + chaotic judicial identification".

This study takes the group of takeaway riders under the platform economy as the core research object. Combined with empirical data from 587 judicial documents involving labor disputes of takeaway riders, it systematically sorts out and analyzes the existing problems of takeaway riders in three dimensions: labor rights, social security, and working environment. It clarifies the impact mechanisms of three factors—algorithmic control, platform's evasion of obligations, and inconsistent judicial identification standards—on the protection of rights and interests, and finally proposes feasible and operable optimization countermeasures for rights protection. Similarly, it breaks through the single judgment dimension of "subordination" in traditional labor relation identification and introduces "algorithmic subordination" as a new consideration index, providing theoretical supplements for the identification of labor relations under new employment forms and further enriching the legal research system in the field of digital labor. Meanwhile, it provides empirical basis for policy-making departments to improve laws and regulations related to the protection of takeaway riders' rights and interests, helps takeaway platforms optimize salary calculation and rider supervision mechanisms, and provides references for judicial organs to unify the standards for adjudicating labor disputes, effectively alleviating the problem of "difficulty in rights protection" for takeaway riders, and promoting the transformation of the takeaway industry from "priority to capital expansion" to "balance between rights protection and industry development".

The key objects of this study are takeaway riders under the platform economy, including riders who sign agreements directly with takeaway platforms and those who are employed through third-party outsourcing companies. The research field focuses on three core contents: identification of labor relations of takeaway riders, coverage of social security, and control of work intensity. The research basis mainly includes domestic judicial precedents, policy documents, and empirical data.

1. Research on the Current Situation and Problems of Takeaway Riders' Rights Protection

The development of the platform economy has driven the rapid rise of the takeaway industry. Takeaway riders are practitioners in the takeaway industry, and their labor protection issues have become the focus due to difficulties in identifying labor relations, work flexibility, and inapplicability of traditional systems. The following is a review from three aspects: the current situation of the takeaway industry under the platform economy, previous research conclusions, and research hypotheses.

1.1. Relevant Theoretical Frameworks

1.1.1. Theory of Labor Relation Identification

The title of new employment forms has been widely accepted by the whole society, but how to define them and where their boundaries lie have led to unclear management subjects, fragmented policies, and deviations in policy implementation. The identity boundaries of workers in new employment forms are vague, and there is confusion in the boundaries of workers in new employment forms in practice.

1. Theory of Subordination in Labor Relations: Traditional labor relation theory holds that the essence of labor relations lies in the subordination of workers to employers. Workers have personal subordination and economic subordination to employers[3]. The former is manifested in workers providing labor under the command and supervision of employers, with the loss of freedom in working hours, working places, and work content; the latter is manifested in the high economic dependence of workers on employers, who provide labor to obtain labor remuneration, which is the main or only means of livelihood for workers. This theory is lagging in identifying the labor relations of takeaway riders in new business forms. Takeaway riders have unrestricted free working hours and workplaces, provide their own labor tools, and may establish labor relations with multiple platforms simultaneously when receiving multiple orders. The personal and economic subordination of workers to employers is weakened.
2. Theory of Incomplete Labor Relations: The Guiding Opinions on Safeguarding the Labor Security Rights and Interests of Workers in New Employment Forms put forward the concept of "incomplete labor relations"[4]. Takeaway riders are between labor relations and service relations, with a certain degree of autonomy while being influenced by platform algorithms and regulations, which conforms to the definition of

incomplete labor relations. The theory of incomplete labor relations provides a new idea for the labor protection of takeaway riders, breaking the traditional binary division of labor relations as "either existing or not" and enabling takeaway riders to obtain a certain degree of labor protection.

1.1.2. Theory of Algorithmic Governance

As the core tool of platform management, algorithms have become the focus of research on their impact on labor protection:

1. Theory of Algorithmic Control: Platforms conduct implicit control over workers by setting delivery time windows, reward and punishment systems, etc., compressing workers' labor costs through maximizing labor efficiency. Labor protection is ignored.
2. Theory of Algorithmic Transparency: Low transparency of algorithm rules will increase information asymmetry, making it difficult for takeaway riders to appeal against unreasonable management, such as arbitrary deduction of fees and unfair delivery routes, resulting in damage to their rights and interests.

1.1.3. Theory of Flexible Protection

For flexible employment methods, this theory advocates changing the traditional "bundled" benefit protection method and building a system compatible with it.

The theory of flexible protection mainly includes two levels: flexible protection of labor market segmentation and flexible protection of informal employment. The balance between flexibility and security in the entire labor market is the ultimate institutional policy goal to be solved.

1. Theory of Balance between Flexibility and Security

The theory of flexible protection tries to 跳出 the dilemma of "losing security due to flexibility or losing flexibility due to security" and seek a flexible balance between the two. The non-standard working methods of takeaway riders are difficult to be covered by traditional labor-capital protection models. Therefore, this theory proposes corresponding "flexible adaptation" protection in labor-capital protection schemes, such as not forcing binding to a single employer, allowing multi-platform superimposed protection; flexibly adapting to flexible employment according to labor intensity corresponding to contributions, while ensuring security protection.

2. Theory of De-labor Relation Protection

The connection between platforms and takeaway riders in new business forms may break through the duality of "employment/non-employment" relations, making it impossible to seek protection based on the identification of labor relations. The theory of flexible protection points out the protection logic of "de-labor relation", that is, not based on the identification of labor relations, but based on the logic of "whether the labor is actually performed", extending the protection scope to all groups engaged in labor. For example, platforms uniformly pay occupational injury insurance for all takeaway riders according to certain standards, directly resolving the high risk of traffic accidents without first determining "whether they are employees".

3. Theory of Hierarchical and Classified Protection

There are differences among takeaway riders. The theory of flexible protection supports "hierarchical classification and avoiding one-size-fits-all". For takeaway riders who rely on platform income for a long time and have regular working hours, protection similar to formal employment is provided; for short-term part-time and occasional order-taking riders, basic risk guarantees are provided; the threshold and cost of participation are reduced.

4. Theory of Multi-party Collaborative Responsibility

Flexible protection is not the responsibility of the platform alone, but a tripartite joint guarantee of the platform, government, and individuals. The platform is the main payer; the government provides institutional supply, financial subsidies, and is responsible for supervision and implementation; individuals bear part of the costs, with shared responsibilities, making protection effective. The above theoretical basis is to make the protection system "adapt" to new employment forms rather than requiring workers to "adapt" to rigid systems, ensuring "flexibility" without "losing protection".

1.2. Research on the Current Situation of Labor Rights Protection for Takeaway Riders

At present, there are problems in the protection of takeaway riders' labor rights and interests. In terms of labor remuneration, some platforms charge high commissions, resulting in low income. At the same time, income is affected by multiple factors such as the number of orders, delivery distance, and delivery difficulty, leading to income instability. On some platforms, the number of orders is high during promotion periods, but the commission is also high, resulting in no actual increase in takeaway riders' income. In terms of working hours, takeaway riders have to work long hours to increase their income due

to the piece-rate payment system. They even sacrifice rest time to extend working hours, with some riders working 12 hours a day, remaining in a state of fatigue, which seriously affects their health. Occupational safety protection is weak. Accidents such as traffic police interception during delivery occur from time to time for takeaway riders, but corresponding protection measures such as work-related injury insurance have not been fully implemented. When many takeaway riders suffer work-related accidents, they cannot obtain effective compensation and treatment due to unclear labor relations with platforms, resulting in damage to their rights and interests.

1.3. Research on Labor Protection Systems under the Platform Economy

In the era of the platform economy, existing labor protection systems are inapplicable. Traditional labor protection systems are premised on solidified labor relations and cannot meet the actual needs of new flexible workers such as takeaway riders. Their provisions on the confirmation of labor relations, methods of paying social insurance, and protection of labor rights and interests cannot be directly applied to new flexible employment under the platform economy era.

To address the above problems, some scholars have proposed establishing a labor protection system for the platform economy, fully considering the flexibility and particularity of platform employment in system design, such as a flexible social insurance payment system, where takeaway riders can pay social insurance monthly, quarterly, or annually according to their own situation; strengthening supervision over platforms, and implementing platforms' labor protection responsibilities and obligations; building a diversified dispute resolution system, and establishing a convenient and efficient rights protection mechanism for takeaway riders.

Based on the above theoretical framework and previous research, this study proposes the following theoretical hypotheses:

Hypothesis 1: Introducing the theory of flexible protection into the construction of a labor protection system for takeaway riders can, on the premise of satisfying their labor protection rights and interests, maximize the adaptation to their flexible employment characteristics. Through flexible protection settings such as flexible payment and flexible selection of protection items, their willingness and feasibility to participate in insurance can be improved, thereby enhancing the quality of their labor protection.

Hypothesis 2: Correctly identifying the labor relations between takeaway riders and platforms is an important prerequisite for improving the protection of labor rights and interests. Only by correctly identifying the labor relations between takeaway riders and platforms can the rights and obligations that both parties should perform within the framework of laws, regulations, and policies be clarified, thereby providing a legal basis for the protection of takeaway riders' labor rights and interests. There are various theoretical bases and methods for labor relation identification, and the current work situation and characteristics of takeaway riders should be considered when identifying labor relations.

Hypothesis 3: Strengthening government supervision and industry self-discipline can urge platforms to fulfill their responsibilities for labor protection of platform workers. The government formulates and revises relevant laws and regulations, strengthens supervision over platforms, and severely punishes platforms that violate relevant labor protection laws and regulations; industry associations formulate industry rules and standards, urge platform enterprises to actively fulfill their responsibilities for labor protection of platform workers, form a good industry order, and jointly safeguard the labor rights and interests of takeaway riders.

2. Research Methods

2.1. Research Design

2.1.1. Research Idea

This study takes "current situation investigation - problem analysis - countermeasure construction" as the logical 主线, combines the particularity of labor protection for takeaway riders under the platform economy, and through the combination of empirical investigation and theoretical analysis, first clarifies the current situation of takeaway riders' labor rights protection and core pain points, then explores the impact mechanisms of key factors such as labor relation identification, algorithmic control, and protection models, and finally proposes targeted countermeasures based on multi-theory integration to achieve the connection between theory and practice.

2.1.2. Research Questions

1. What specific rights and interests problems exist for takeaway riders in terms of labor relation identification, labor remuneration, occupational safety, and social security in the platform economy scenario?
2. What are the differential impacts of different employment models and algorithm management intensity on the rights protection level of takeaway riders on platforms such as Meituan and Ele.me?

3. How to build a labor protection system suitable for the takeaway rider group based on the theory of flexible protection and algorithmic governance theory to realize multi-subject collaborative governance?

3. Empirical Findings on Takeaway Riders' Rights Protection: A Comprehensive Study Based on Labor Relations, Occupational Injury, and Insurance Participation Willingness

3.1. Judicial Identification Results of Labor Relations between Takeaway Riders and Platforms

The recognition rate of labor relations between platforms and riders by people's courts has dropped below 1%[6]. Platforms, through the "network-like outsourcing + individual industrial and commercial households" double-layer structure, have compressed the original recognition rate of up to 81.62% to less than 1%. This result is verified in 587 judicial documents: cases where platforms are directly ordered to bear employer liability account for only 18.4%, and the remaining risks are successfully transferred to outsourcing companies or crowdsourcing companies.

3.2. Gap in Occupational Injury Protection

3.2.1. Current Situation of Work-related Injury Insurance Participation

The participation rate in work-related injury insurance for direct-operated riders is 88.5%, 34.0% for outsourced riders, and only 4.1% for crowdsourced riders; at the same time, more than 50% of interviewed riders stated that they "have never heard of" or "do not understand" the local occupational injury protection system[7].

3.2.2. Injury and Liability Attribution

Taking a site in Pudong, Shanghai as an example, the platform's prevention cost is lower than that of riders[8], so it should bear the main responsibility; however, in judicial practice, the proportion of platforms actually bearing compensation liability is only 15%, and a large number of injury costs are ultimately borne by riders themselves.

3.2.3. Mismatch between Insurance Willingness and System

25% of riders "do not understand" their own social security situation[9]; high-income riders resist participating in insurance for fear of a decrease in their take-home income, while low-income riders have low enthusiasm for participating in insurance due to the mentality of "taking care of the present first".

Even if the government provides subsidies, the proportion of riders willing to "participate in work-related injury insurance at their own expense" is only 57.24%, and the system design must break through the traditional "five insurances" framework.

3.2.4. Algorithmic Control and Labor Intensity

Platforms, through the "time window + reward and punishment" algorithm, result in riders' average daily online time exceeding 10 hours; 42% of interviewed riders admitted to running red lights or reversing due to algorithm pressure[10], leading to a significant increase in the risk of traffic accidents.

Summary

The rapid expansion of the platform economy has made takeaway riders an indispensable part of the urban instant delivery system. However, for takeaway riders, the lag in institutional supply has offset the flexibility of the business model, resulting in the lack of rights protection. Ambiguous labor relations, high risk of occupational injury, lack of social security, and high-intensity labor under algorithmic control constitute the dilemmas they face daily. The empirical study on rights protection conducts a systematic study around "the protection of takeaway riders' rights and interests from the perspective of platform economy". Therefore, we draw the following five conclusions and propose improvement ideas at the institutional and governance levels on this basis.

First, the mechanism for identifying labor relations needs to be reconstructed. The traditional single standard of "personal-economic subordination" is particularly backward in the face of multiple barriers. In judicial practice, platforms exploit employment subjects layer by layer, transferring the employer liability that should be borne to outsourcing companies, making it difficult for riders to obtain effective relief in case of work-related injuries, overtime disputes, or social security disputes. This not only weakens the protective function of labor laws for vulnerable groups but also objectively encourages platforms to continue to adopt the expansion model of low assets and high employment. Therefore, future legislation should consider the dimension of "algorithmic subordination", comprehensively consider the degree of substantive control of the platform over the labor process, and bridge the institutional gap between flexible workers and the existing labor protection system.

Second, the risk of occupational injury needs socialized sharing. The frequent traffic accidents in the takeaway industry stem from the platform's extreme pursuit of timeliness, but roads are restricted by various factors, making it impossible to achieve the ideal timeliness. Currently, work-related injury insurance is premised on written labor relations, excluding crowdsourced riders, thus making risks

highly individualized. Once an accident occurs, riders often face multiple pressures, but platforms and outsourcing companies usually evade compensation obligations through contract terms. It is urgent to introduce "de-labor relation" occupational injury insurance, which means that regardless of the existence of labor relations, riders can pay premiums per order as long as they complete platform orders. Therefore, it is urgent to realize socialized risk sharing, which not only reduces the compliance cost of platforms but also enhances riders' sense of security.

Third, the social security system needs to establish a dynamic balance between "flexibility" and "security". The traditional five-insurance model is premised on stable employment and long-term payment, which does not match the mobility, piece-rate income, and multi-platform part-time characteristics of riders. Surveys show that riders have insufficient awareness of the current social security policies, and coupled with their volatile income and weak payment capacity, their willingness to participate in insurance is generally low. Future system design should follow the principle of "hierarchical classification": for full-time riders, comprehensive protection such as five insurances can be provided; for part-time riders, an order-based occupational injury insurance can be established. At the same time, the government can encourage the formation of a tripartite co-responsibility mechanism of "platform as the main payer, government subsidies, and individual supplements" through financial subsidies and tax reductions.

Fourth, algorithmic governance needs to embed the value dimension of "people-oriented". Platforms implement refined management of riders through time, rating systems, and reward and punishment rules, which improves delivery efficiency while compressing riders' autonomous time. When algorithms transfer all risks caused by uncontrollable factors to individual riders, riders are often forced to meet requirements such as timeliness through high-risk behaviors, forming a vicious circle of "efficiency-safety" imbalance. Therefore, regulatory authorities should promote platforms to establish algorithm transparency and appeal mechanisms: on the one hand, regularly disclose platform algorithm mechanisms to riders; on the other hand, establish an independent third-party evaluation mechanism to continuously monitor and dynamically adjust the rationality of algorithm rules, ensuring that technological progress does not come at the expense of workers' safety.

Fifth, multi-stakeholder collaborative governance is the fundamental path to protect takeaway riders' rights and interests. As the organizer of the labor process and the largest beneficiary of profits, platforms should bear primary responsibility in establishing a reasonable rights protection mechanism. Government departments need to make efforts in legislation, law enforcement, and judiciary: in legislation, legislative departments should promptly issue the Regulations on the Protection of Rights and Interests of Workers in New Employment Forms to clarify the protection list for workers in new employment forms; in law enforcement, supervision departments should strengthen inspections and penalties on the compliance of platform employment, and further establish an "industry blacklist" system; in judiciary, judicial departments should issue guiding cases on labor disputes of takeaway riders to unify adjudication standards.

To sum up, the problem of protecting takeaway riders' rights and interests is not the fault of a single subject but the result of the superposition of multiple institutional deficiencies. Only through the innovation of legal systems, optimization of policy tools, reconstruction of platform governance, and collaboration of social forces can the issue of rights protection find a dynamic balance between flexibility and security, truly integrate the "people-oriented" development concept into every part of the digital economy, and realize the healthy and sustainable development of the platform economy.

References

[1] Xu Juan, Zhou Yuxuan. "Algorithmic Control and Digital Labor: A Study on the Legal Protection of Food Delivery Riders' Rights and Interests-An Empirical Analysis Based on 587 Judicial Documents." Nanhai Law Journal, Vol. 8, No. 5, pp. 113-124, 2024.

[2] Ai Lin, Yu Xuan. "Realization of the Right to Rest in New Employment Forms from the Perspective of Alienated Labor Theory." Jianghan Forum, No. 11, pp. 126-131, 2024. DOI:10.3969/j.issn.1003-854X.2024.11.018.

[3] Zhang Jingjing. "Research on the Identification of Labor Relations and Protection of Rights and Interests of 'Online Car-hailing Workers'." Harbin University of Commerce, 2022.

[4] Xiang Dingyi, Li Yingying, Chen Mengxi, Wang Dong. "Protection of Rights and Interests of Platform Employees under Algorithmic Control-Taking Food Delivery Riders as an Example." Economist, No. 6, pp. 258-261, 2024.

[5] Du Jinyu. "Research on Refined Protection of Platform Labor Force under Corporate Social Responsibility-Based on the Investigation of the Takeaway Industry." Journal of Shandong University (Philosophy and Social Sciences), No. 3, pp. 49-59, 2024.

[6] Wang Tianyu. "Theoretical Reflection and Institutional Adaptation of the Identification of Platform Employment Labor Relations-An Empirical Study Based on 587 Judicial Documents." Global Law Review, No. 3, pp. 5-20, 2020.

[7] Zhao Liqiu, Li Xue, Zhang Ke. "Research Report on New Employment Groups Represented by Riders." Beijing: School of Labor and Human Resources, Renmin University of China, 2024.

[8] Chen Long. "Research on the Attribution of Occupational Injury for Employees in New Business Forms." China Social Security, No. 2, pp. 37-41, 2022.

[9] Zhang Dandan. "Survey Report on the Willingness of Flexible Employees to Participate in Insurance." Southern People Weekly, 19 June 2025, p. 10.

[10] Chen Long. "Algorithmic Control and Labor Process Research-Taking Food Delivery Riders as an Example." Sociological Studies, Vol. 35, No. 6, pp. 64-85, 2020.